

g(t) = A, $-\tau/2 \le t \le \tau/2$ = 0, For the remainder of the period T

Figure 1 – Exemplary square wave signal

25

30

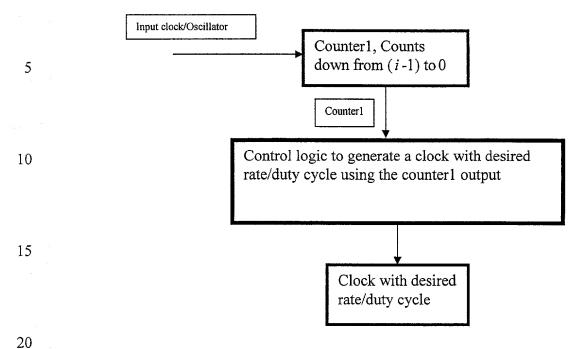


Figure 2 - Clock generator with desired clock rate/duty cycle using a high frequency oscillator/clock input.

Change the duty cycle of the clock to eliminate or suppress the nth-order harmonic of that clock (step 12).

Generate a low-interference clock having the changed duty cycle while keeping the predetermined frequency (step 14)

35 FIG. 3

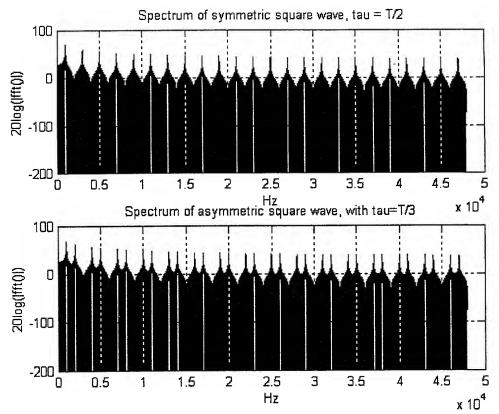


Figure 4 - Power Spectrum for a 1KHz clock (symmetric/asymmetric)

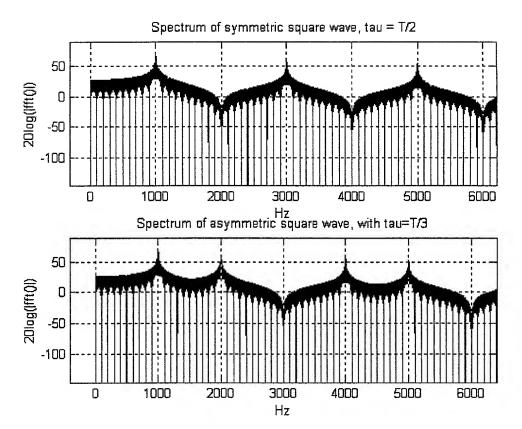


Figure 5 - Power Spectrum for the 1KHz clock (symmetric/asymmetric)

5

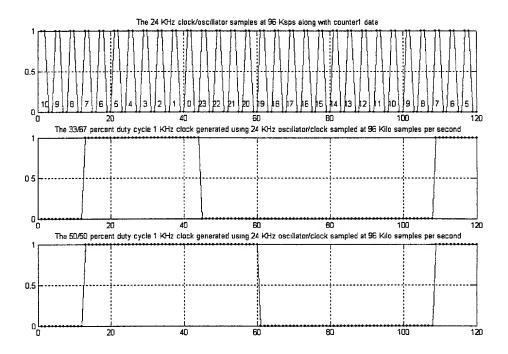


Figure 6 - Time domain analysis of the 24 KHz clock along with the 1KHz clock with different duty cycles.